Here the mountain slopes which

/14 cont./ only 70 years ago were still covered with dense tree growth are now cleared to gain pasture areas for stock-raising, thus causing extensive erosion of the normally already very thin humus covering and a certain sterility of the soil. The situation is different in the villages still exclusively inhabited by Indios in northern Tierradentro. They lie in part considerably higher (Mosoco, Vitoncó, Suin, and Lame about 2,500 meters). Here the nights are already perceptibly cold. Coffee no longer thrives, in its stead maize and potatoes. It is also the best climate for cattle-raising. The mountain slopes, due to relatively sparse settlement on the part of the Paez, have not all been put to economic use as yet; the /15/ tree growth guarantees natural water conservation throughout the year.

The two rainy periods of the year are from May to June and October to December. During these times, especially in the rainy period of the first half of the year, it rains in considerable amounts every day, whereas the dry periods are regularly free of precipitation.

Tierradentro's wealth underground has not yet been explored with modern means. In pre-Spanish times, and even after the Conquista /the Spanish conquest; see the glossary, p. 249 /, numerous salt beds were exploited. The Spaniards brought Negro slaves into Tierradentro as mine workers, whose descendants make up a considerable part of the population of Belalcázar. Today some of them work as gold-washers on the banks of the Rio Paez. In Indian times gold was still obtained at Tálaga, San Vicente, and Jambaló. In the southern part of Tierradentro the silver mines were a significant economic factor near the city of La Plata -- so-named because of its important finds.

From colonial times up to five years ago only the routes passable for human beings and horses (caminos de herradura /bridle paths/) were available for traffic routes. The two chief connections were from Inzá over Paramo de las Guanacas to Silvia and Popayán and into the Cauca Valley, as well as from Inzá via La Plata into the Magdalena Valley.

/112 cont./

142 age the hair seldom becomes white. We met only one woman with slightly graying hair and an old man with a gray, sparse
[302] beard, but dark hair. The beard among men is scant. The beard hair is regularly plucked (see Ills. 148 to 155 /see pp. 265-268/).

143 According to the blood-group analysis of the Paez, among the 303 individuals examined there were 88.78 per cent of blood group 0, 6.93 per cent of blood group A, and 4.29 per cent of blood group B. The blood group A+B is not represented (G. Arcila Velez, pp. 11-14).

129 The racial concept of Indian is foreign to the Paez themselves. To them "Indio" designates a cultural status. My colleague, Segundo Bernal Villa, an Indian from the region of Pasto, was designated as "blanco" because of his European clothing. And when our interpreter Victoriano bought himself "white clothing" (hat, pants, shirt, shoes) with the money he earned, he was called a "white" in his village and accordingly treated with hostility.

161 The population figures for the Paez do not seem either to increase or decrease, as far as the uncivilized Paez are con-
165 cerned, for example, in Calderas. Infant mortality comes to more
164 than 50 per cent. The most common cause of sickness is whooping cough. The health of children who survive their second year, as well as of adults, is -- considering the circumstances -- quite good. True, one scarcely sees old people over 60 (and
[132] those who look that old are probably younger). The most fre-
[362] quent illness of adults is tuberculosis, which claims numerous victims, since the nights are very cold and the cold and wind can
[262] penetrate through the light walls of the houses unhindered. More-
[273] over, no fat of any kind is commonly eaten. Another illness from which many Paez suffer, which, however, is not taken seriously, is stomach trouble caused by the drinking of brandy even during
[154] infancy and the unsuitable diet in childhood. Infants are given
[262] beans, cabbage, and yuca, but no milk, except mother's milk.

/120 cont./
the simplest possible form. Three rocks provide the lateral support or stand for the pots, of which there are two at most, a metal one, usually of aluminum, and an earthen one. Very poor families have only one earthen pot, which is relatively cheap to buy. The earthen pot cannot be hung up; it is set between the three fire-stones in such a way that it cannot tip over, whereas the aluminum pot is hung by its handle on a soot-covered, angled stick that hangs down from the ridge (Ill. 166 /see p. 273/). Above the fire area there hangs a frame made of maize canes and about one square meter in size, on which household utensils and, above all, the rock salt for salting food are stored, airy and dry. Tables, chairs, or stools of any kind are unknown. One generally sits on the hairy side of an untanned and hence board-stiff cowhide, on which one also /121/ sleeps, or one sits on a beam, a block of wood, or a stone. Paez who have seen house furnishings in Inzá or in the dwellings of white colonists have sometimes built for themselves as a bed a sort of bench 30-50 centimeters high, consisting of sticks or reeds laid side by side. For sleeping the customary cowhide is spread on it. These sleeping benches are not used for sitting.

The nights in Calderas are generally quite cool, and the light construction of the walls with cracks between the individual maize stalks does not in any way prevent the cold wind from coming in. In a few houses, near the sleeping area, I saw the walls sealed by means of expressed sugar-cane piled up horizontally. For sleeping, the members of the family lie down in a circle around the fire area, where the fire must be kept going all through the night. This, like all housework, is the task of the woman, who must gather sufficient fuel beforehand and get up every two hours during the night to stir up the fire. Furthermore, she must get up an hour earlier in the morning in order to have the first meal, which is eaten around five o'clock, sometimes even at four o'clock, prepared on time. In spite of this, the men think that they are the ones who do the hardest work and that basically they are the only ones in the village who really work.

/254 cont./

804 192 The period of a day is subdivided into the day (ẽn) and the night (kos). Early morning is called kosẽ; afternoon at the time when work is at an end, which is reckoned by the position of the sun, is called ff'nze. Other subdivisions of the day are made according to the interval of an ẽšnetc, meaning the time it takes to chew a dose of coca. In translation this designation is used for "hour." The largest period of time is the month, ãte, which is designated by the same word as for "moon." For the period of a year the Spanish word año is used. In former times the word [221] enzte was used. It is the designation for the large annual communal fishing at the weir during the dry season in February. The [226] [132] two rainy seasons, called nospá'nye, and the two dry seasons of the year, called sek, are not regarded as time intervals, but as seasons. The latter is at the same time the word for "sun."

823 [491] No large geographical orientations or regional, individual divisions of any kind could be discovered. Moreover, all of Tierradentro is enclosed by civilized areas -- there is even an auto road leading to Belalcázar -- so that many Paez men have seen the surrounding countryside and even cities with their own eyes. [101] [186] Only the western bordering mountains of the Central Cordillera, in the direction of Popayán, are conjectured to be the habitation 123 484 area of the dreadful man-eaters, the Pijao. Geographical means of orientation are unknown. Traveling is done only during the day, in groups, and in company with a person who knows the way. 821 Of the stars it is only known that there stars that move and fixed ones, without their being distinguished in greater detail or according to constellations.

202 [361] [203] It is amazing that, in spite of their settlement pattern of individual farms, the Paez do not have any optical or acoustical means of communication over larger distances. /255/ In case of urgent news or questions, children are sent.

802 There are numbers only from one to six and ten. For the designations seven to nine the corresponding Spanish numbers are used. The Paez word for "ten" (kóse pémba) literally means "no more hands" and indicates that the fingers were used for counting. The toes are not used for counting; anything beyond ten is

The fields are prepared with
/283 cont./
241 machetes and fire. They are the so-called rozas, a barbarous, primitive, and criminal method of agriculture. Burning is a habit of natives and colonists alike and goes so far that even the vegetation of the cliffs, crags, and escarpments is burned, where obviously no practical use can be derived and in addition it leaves the denuded rock at the mercy of the agents of erosion.

136 Fauna.--The fauna consists of a few classes of ophidians and small mammals: tinajos, coatis, pacas, armadillos, porcupines, foxes, deer, tapirs, sloths, and rabbits. Bears, ocelots, and pumas are found in the virgin montañas. Birds, such as wild pigeons and chachalacas, abound.

● 132 Climate.--There are no data on the rainfall, temperatures, /284/ and winds of this zone. The climate on the whole is temperate, or, to put it better, it is a coffee-growing climate.

361 Owing to the unevenness of the terrain, the natives inhabit
133 a region that extends from 1,000 meters (Itaibe) up to 2,500
132 meters above sea level (Suin, Mosoco, Vitoncó, and Lame). According to Dr. Gregorio Hernández de Alba, at the time of the Conquest the Paez peoples of Tierradentro inhabited "altitudes and climates between 2,620 meters with 13 degrees centigrade and 1,650 meters with 17 degrees centigrade on the average" (1).

1. Hernández de Alba (Gregorio), p. 917 /see the bibliography in the foreign text, p. 309/.

132 The atmospheric humidity and the rainfall increase as the cordillera becomes higher and snow-capped Huila draws nearer, with two summers and two winters, influenced, of course, by the topography, the vegetation, and proximity to the summit. There is an intense summer during the months of January and February, and another in July, August, and September. The winters are intense during the months of March-June and, on a smaller scale, in October-December. Snow-capped Huila

/284 cont./

132 gives rise to cold local winds that blow through the valley of the Páez, affecting chiefly the areas of Vitoncó, Suin, Chinas, San José, Mosoco, and also the parcialidad /a territorial division/ of Calderas itself. The variation in temperature is noticeable in these zones sometimes having hot days and very cold nights. Nebulosity is almost constant, especially in the northern zones.

241 Economy.--The topographic and climatic characteristics permit the cultivation of various plants, such as maize, beans, bananas, sugar cane, yuca, arracacha, and gourds in the temperate zones, and in the cold ones potatoes, maize, ullucos, [433] beans, gourds, and cabbage. The produce barely leaves a [439] surplus for trade with the parcialidades and urban centers of [438] Belalcázar, Inzá, and Valencia. The potato crops of Mosoco, Vitoncó, and San José serve for an active trade with the Paez of the western slope of the cordillera, across the Páramo de Moras.

433 Coffee and the production of panela are important lines
245 in the economy of the colonists and also of numerous groups
249 of acculturated natives. The coffee of Tierradentro is con-
177 sidered one of the best in the country, owing to the quality and mildness of the bean.

23 /285/ The raising of livestock flourishes among the civilized
437 groups. For the natives it serves for maintaining a barter trade with their neighbors, the white and mestizo colonists.

311 On the whole, native production is relatively scant,
433 giving rise to times of "hambruna" /ravenous hunger/ when
[731] the summers or winters are rather harsh. The workable land lies in the small plains and valleys of rivers and streams, on the alluvial terraces, and on the plateaus. Comparing the size of Tierradentro with that of its arable land, the latter appears scant, a problem that is aggravated by the increase in population and the habitual burning.

101 Population.--Tierradentro is the country of the Paez,
361 who at the time of the Conquest were settled to the north of

/303 cont./

241 relatively recent times, has fertile and humid soils. The harvests
433 are large and of excellent quality. It produces profitable yields.
244 The real production of Mosoco potatoes is there. They them-
[492] selves designate it as the principal harvest. During the months of April and May, when the potatoes are being harvested, numerous droves of pack animals carry the produce daily to the market
[435] in Silvia. The profits from this crop are dependable. The cultivators state that even selling at four pesos per arroba it gives a profit. Normally an arroba of potatoes is quoted at six or seven pesos. The planting of potatoes in the paramo begins in October, is intensified in November and December, and the last is done in January. They take advantage of the mildness of the climate
● [132] at this time. During the months of June, July, and August the
[484] winter is harsh, with intense cold and hurricane winds. Crossing the paramos at this time is quite perilous.

241 In San José, La Troja, El Cabuyo, El Cuartel, Lame, and
433 Vitoncó, during the first four months of the year, wheat, barley, maize, frijoles, broad beans, and peaches are harvested.

Toward the months of October, November, and December, harvesting is done in Suin, Chinas, Calderas, San Andrés, Togoima, Santa Rosa, and Mosoco itself and consists principally of Maize, frijoles, ullucos, potatoes, and coffee. They constitute what we might /304/ call the second harvests of the year in Tierradentro. The planting begins after Ash Wednesday (March approximately) and is intensified in the months of April and May.
244 The last is done in July. The potato seed planted at about this
433 time in Mosoco comes from the harvest in the "paramo." This is a secondary planting of scant yield. It usually results in losses, but the Mosoco cultivators plant with the aim of preserving the seed. It is interesting to note that the sole agricultural activity of one trader based in Mosoco is the planting of potatoes in the
[434] paramo. He dispenses with the July sowing altogether. He prefers to buy the seed in Silvia, he pays the entire labor force, and in spite of these investments, which are high, he gets a good profit.

/304 cont./

241 433 Aside from maize, a basic product of consumption in all the parcialidades, some of them emphasize certain crops primarily intended for commercial purposes. Thus, Mosoco produces potatoes and garlic; San José, wheat; Vitoncó, wheat and peaches; Lame, wheat and laurel wax; Togoima, coca; and the others, coffee.

241 433 The months of the most intense labor in the temperate zone correspond to the first five of the year, and especially to February and March, in order to take advantage of the sunny days during those months for the burning and the sowing, which in turn will benefit from the rains of April, May, and June. During this time, the reserves of the previous year's harvests are consumed, which, let it be said in passing, do not amount [132] to much. Thus, the months of scarcity are June, July, and August, and those of relative abundance, October, November, and December; the former relatively dry and the latter with copious rainfall.

In Mosoco this schedule varies considerably, owing to the [132] peculiar climate and the geographical position. The rains are constant in almost every month of the year; nevertheless, one can count on a few weeks of sunshine during the months of January and February. In the middle of the year, when the trade winds blow from the southeast, the winter is harsh. Thus, the months of intense labor are April, May, and June and coincide exactly with the harvesting of potatoes, wheat, and maize, and also those of November and December, for the planting of potatoes in the "paramo." March, April, and May, are months of plenty, and to some extent September and October as well. It would seem that there should not be any months of "hambruna" /extreme hunger/, but there are.

/305/ It is clear that the people of Mosoco work more and harder than the other natives; they actually harvest in almost every month of the year, but, like the others, they have months of "hambruna," which are September, October, and November, in spite of the fact that during these months they harvest potatoes and ullucos, but they call them such because they do not have 600 maize. The cultivation of potatoes on a large scale began more

Fire is also set to the vegetation on
/306 cont./
241 the ridges, crests, and windings, where no obvious advantage
185 can be gained and where, instead, it destroys a vegetation that virtually /307/ could be turned into a barrier that would prevent the danger of the animals.

The clearings are also laid out on the banks of brooks, streams, rivers, springs, and damp hollows, which, from a lucrative standpoint, is excellent, since it is precisely there that the harvest yields the most, but it is very harmful, since it destroys the vegetation that preserves the moisture and holds the soil, thus avoiding erosion.

241 The clearing is done by all the male members of the
476 family. But more generally the mingas /communal work-parties/ do it. In this case, the workers first cut with their machetes the grasses, branches, vines, etc., in the lower part of the forest; then, with axes and machetes, they fell the trees. It should be noted that these trees are not cut at the base, but more or less at eye level. The fallen trees are allowed to dry for approximately one month and then are burned. The thick logs remain intact, as does the brush. This is piled up, and sticks are cut to make fencing. This work is also done by mingas. First the stakes are driven in about a meter apart. Then sticks and branches are woven in. The fences are made so tight that they prevent dogs,
[417] pigs, and other animals from entering. People enter by means of a stick with notches that leans against the fence on either side. These sticks are called afa, and they are also placed at difficult spots on the paths, chiefly for crossing obstructions.

241 In Mosoco, where the lands are cleared and divided into lots, clearings do not exist. Only in the "paramo," the mountainous region, can they be observed. But the custom of leaving the land uncultivated for several years has not disap-
[824] peared. The fences are made of lechero /Euphorbia/ stakes, a tree that has the peculiarity of taking root and continuing to live. But the use of barbed wire is steadily increasing.

Planting and harvesting

● [152] Planting is conditioned by the pluviometrical conditions in Tierradentro. The summer months are January, February, March, July, August, and September, and those of winter are

/307 cont./

241 April, May, June, October, November, and December. Natu-
132 rally, these periods of summer are relative and correspond in reality to the temperate zone. In Mosoco and the high parts of the Cordillera, /308/ a fine rain is falling almost constantly, if not an actual downpour. In July, August, and September, the winter is harsh, influenced entirely by the trade winds from the southeast.

Bearing these climatic factors in mind, planting is done during the months of March, April, and May. They take advantage of the rains of these months. This agricultural cycle is common for all of Tierradentro including Mosoco proper. The "páramuna" part of Mosoco is excepted, for the reasons listed earlier.

243 Of the cultivable species, maize occupies the dominant place in the agricultural activity of Tierradentro. The preparation of the soil differs somewhat in the temperate and cold thermal levels. Whereas cleaning out and burning the underbrush are sufficient in the temperate one, planting beds are made in the cold one. Maize seed is selected from the best and most filled-out ears, avoiding the small kernels at the points. They believe that they would not fruit, calling them, for this reason, "maize-man," and, on the other hand, calling the big kernels [842] that yield produce "maize-woman." They make the association that it is the women who have children, even though they do not conceive of fertility without concourse with the man.

243 It is common to have mingas for sowing. In this way the
244 work is soon finished. On the appointed day, eight to ten
476 laborers assemble, with bags full of maize tied at their waists;
[462] they start sowing very early. This is a masculine activity, al-
[184] though in Lame and Mosoco women also participate. The holes are made with a strong, pointed stick at intervals of one meter and 50 centimeters and to a depth of 10 to 15 centimeters. Six or seven kernels are placed in each hole. They bury the frijole next to the logs that remain from the clearing. Peas are also commonly sown there. The seeds of bottle gourds and ahuyama/ squash, /Cucurbita maxima/, which are sown in the maize fields,

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The area of this study is delimited on the west by the valley of the Patía River and by the Cuembi, Nambi, and Cuaiquer Rivers, and on the east by the divide between the rivers running to the Pacific Ocean and those flowing eastward into the Caquetá and Putumayo Rivers.

All this region is cool to temperate throughout the year, the extremes being at Túquerres, which lies at 3,104 m. (9,433 feet) elevation and has a mean temperature of 11° C., and Ancuyá at 1,358 m. (4,380 feet) with a mean temperature of 21° C. The greater part of the population lives between 2,890 m. (about 9,470 feet) with 12° C., as at Ipiales, and 2,020 m. (about 6,630 feet) with 18° C., as at Buesaco.

Farther north, the Cordillera Central forms a great mountain mass at the sources of the Cauca and Magdalena Rivers, the latter delimiting the Cordillera Oriental, which extends toward the northeast, entering Venezuela and stopping at the Atlantic Coast. In the Department of Cauca, the native peoples occupied the altiplanos and the mountain slopes of the central portion of the Andes and of the Cordillera Central and Cordillera Oriental. Some of the mountains are snow-capped, like Coconucos (4,800 m.; 15,746 feet) and such volcanoes as Puracé (4,908 m.; 16,102 feet) and Sotará (4,580 m.; 15,026 feet). There are high páramos, swept by icy winds, where only the frailejón (*Espeletia hartwegiana*) and certain grasses grow. Below these heights, the topography is hilly and grandiose, with a succession of hills, terraces, altiplanos, ravines, cañons, and valleys.

Some tribes, like the *Coconuco* and *Moguex*, live in the cold mountain spurs toward the Cauca River; others, like the *Páez* and *Guanaca*, in the high páramos with a climate like that at Moras (3,670 m.; 12,040 feet), Guanacas (3,518 to 3,750 m.; 11,541 to 12,303 feet), Las Delicias, and other places to the east. The *Popayanense* occupy the temperate Valley of Pubén. The *Pijao* lived in the last mountains of the Cordillera Central toward the Magdalena River, which, like the valley of this river, is low and warm, and extended to the Cauca Valley in the neighborhood of Buga.

The country inhabited by the *Popayanense* at the Conquest has an altitude of 1,760 m. (5,775 ft.) and a mean temperature of 18° C.; the *Páez* in Tierradentro, 1,650 to 2,620 m. (5,774 to 8,595 ft.) and 13 to 17° C.; the *Moguex*, 2,521 m. (8,270 ft.) and 14° C. at Silvia; the *Andaquí* in the region of San Agustín, 1,695 m. (5,561 ft.) and 18° C.; the *Yalcón* and *Timaná*, 1,100 m. (3,608 ft.) and 24° C.; and the *Pijao*, 873 m. (2,864 ft.) and 25° C. at Carnicerías, and 1,700 m. (5,577 ft.) and 18° C. at Pijao (Caldas).

Such differences in climate with the consequent differences in flora and fauna contributed to the variations in economy and culture. The high peaks of the cordilleras and the deep rivers were frontiers between the tribes, clearly separating them from one another—the *Moguex*

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101 from the *Páez*, the *Páez* from the *Píjao*, the *Andaqui* from the *Tama*
13] of Bajo Huila.

This extremely varied habitat offers a great range of food resources
241 and of possibilities for agricultural crops. In the high, cold moun-
133 tains and altiplanos, between 2,500 and 3,000 m. (about 8,200 to 9,800
● 132 ft.) elevation, where the mean temperature is 11 to 15° C., the prin-
cipal crops were potatoes (*Solanum andigenum*), ullucos (*Ullucus tuberosus*), and cubios (*Tropaeolum tuberosum*). In the medium zone, between 1,500 and 2,500 m. (about 5,200 to 8,200 feet), with a temperature of 15 to 20° C., the main crop was maize (*Zea mays*), but arracacha (*Arracacia esculenta*), quinoa (*Chenopodium quinoa*), and sweet potato (*Ipomoea batatas*), were also cultivated. In the low, warm zone between 500 to 1,600 m. (about 1,600 to 5,200 feet), with a temperature of 20 to 28° C., the main crops were maize, sweet manioc or yuca (*Manihot utilissima*) and beans (*Phaseolus vulgaris*).

136 The cold lands also produced in addition to these principal crops,
[241] maize, squash (*Cucurbita maxima*), wild fruits, birds including ducks (Anatidae), doves (Columbidae), guans (*Penelope*), mammals such as the spectacled bear (*Tremarctos ornatus majori*), and other small, wild beasts like the armadillo (*Dasypus novemcinctus*), guaratinajo (*Dinomys branickii*), guatin (*Dasyprocta fuliginosa candelensis*), and
[231] small fish from the rivers and lakes. The guinea pig (curí or cuy,
[262] *Cavia aperea*), which is prolific in all the climates, was the only domesticated animal and is an important source of food of the modern Indians.

241 The inhabitants of the medium, humid zone were more favored by nature in that crops grew faster and in greater variety. In addition to the plants named, they grew achira (*Canna edulis*), auyama (*Cucurbita verrucosa*), beans (frijoles), and peanuts (*Arachis hypogaea*).
262 Among the great variety of wild foods were fruits, granadilla (*Passi-*
137 *flora ligularis*), guayaba (*Psidium*), guama (*Inga* spp.), avocados
136 (*Persea Americana*), papaya (*Carica papaya*), guanabana (*Annona muricata*), and chirimoya (*Annona cherimolia*), and such animals as deer (*Mazama rufina*, *M. gualea*, and *Odocoileus virginianus consul*), rabbits (*Sylvilagus fulvescens*), guinea pigs, various rodents, and large birds, such as chachalacas (*Ortalis*) and guans (*Penelope*).

Additional foods of the low, warm regions were sweet potatoes, beans (frijoles), and yams (*Dioscorea alata*); such fruits as pineapples (*Ananas sativus*), papaya, custard apple (*Annona squamosa*), cactus fruit (*Opuntia* spp.), and plantains (*Musa paradisiaca*); and large fish from the rivers.[4]

[127]

[4] The scientific names of the plants were taken from Cuatrecasas, 1939. The mammals were tentatively identified by Dr. Remington Kellogg, of the Division of Mammals, U. S. National Museum, and the birds by Dr. Alexander Wetmore, Secretary of the Smithsonian Institution.